

**ABSTRACT**

The present invention relates to system and method of asynchronous data replication. In an embodiment, the system includes a primary host that asynchronously transmits write and sync commands where each write and sync command includes a data set ID and a sequence number. A secondary host coupled to the primary host receives the write and sync commands out of order, tracks receipt of write and sync commands, and after receipt of the write and sync commands of the data set writes blocks associated with the write commands to data storage coupled to the secondary host.